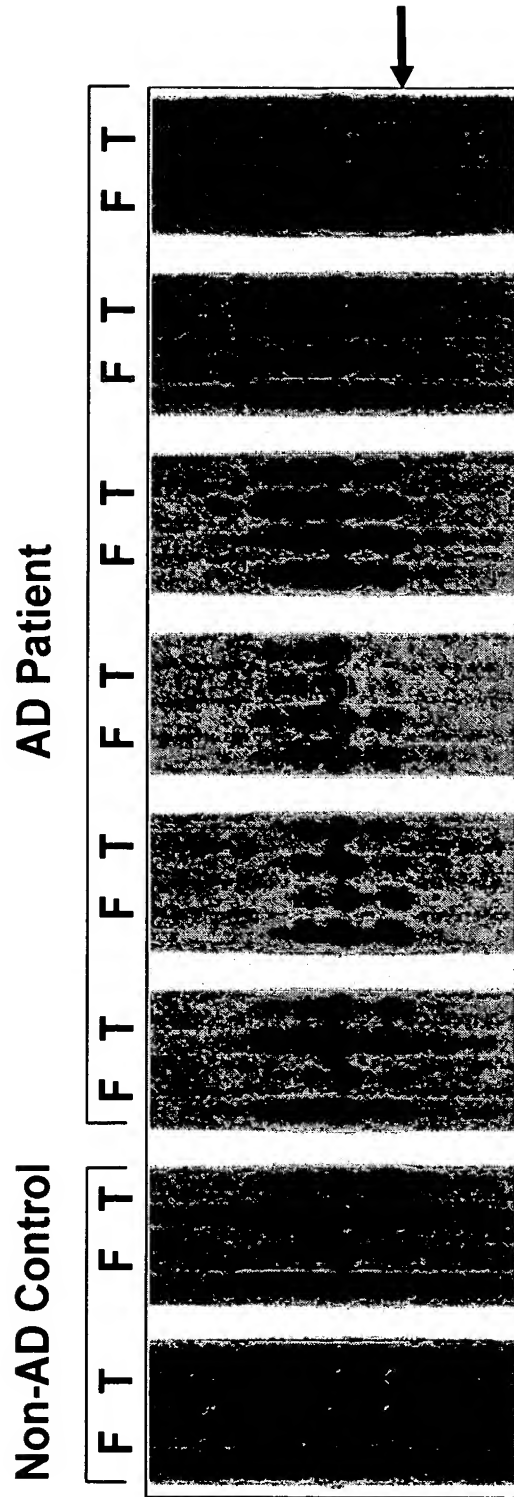
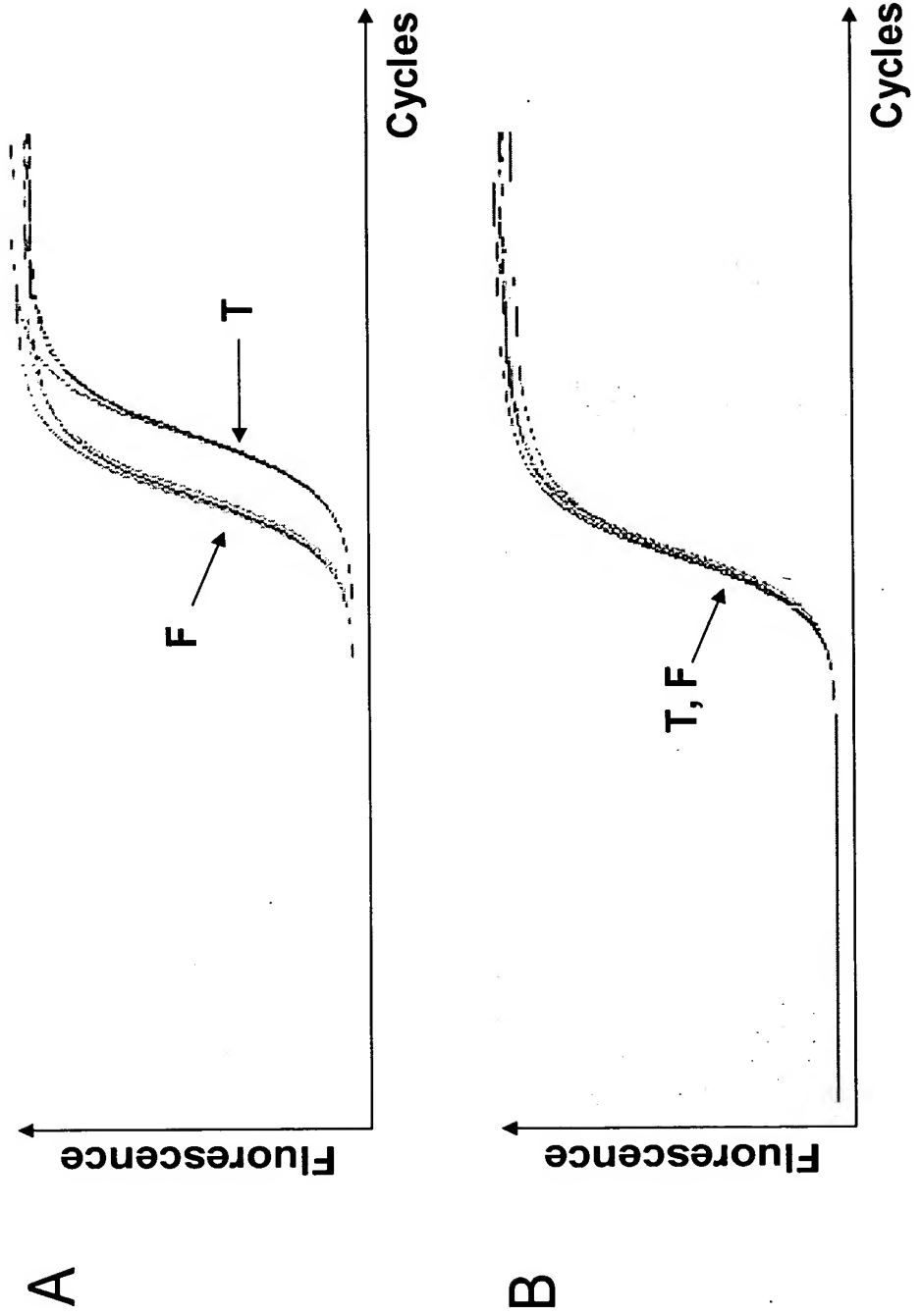


Fig. 1: Identification of differentially expressed genes in a fluorescence differential display screen



**Fig. 2: Verification of differential expression
of human MAL2 by quantitative RT-PCR**



**Fig. 3: Verification of differential expression
of human MAL2 by quantitative RT-PCR**

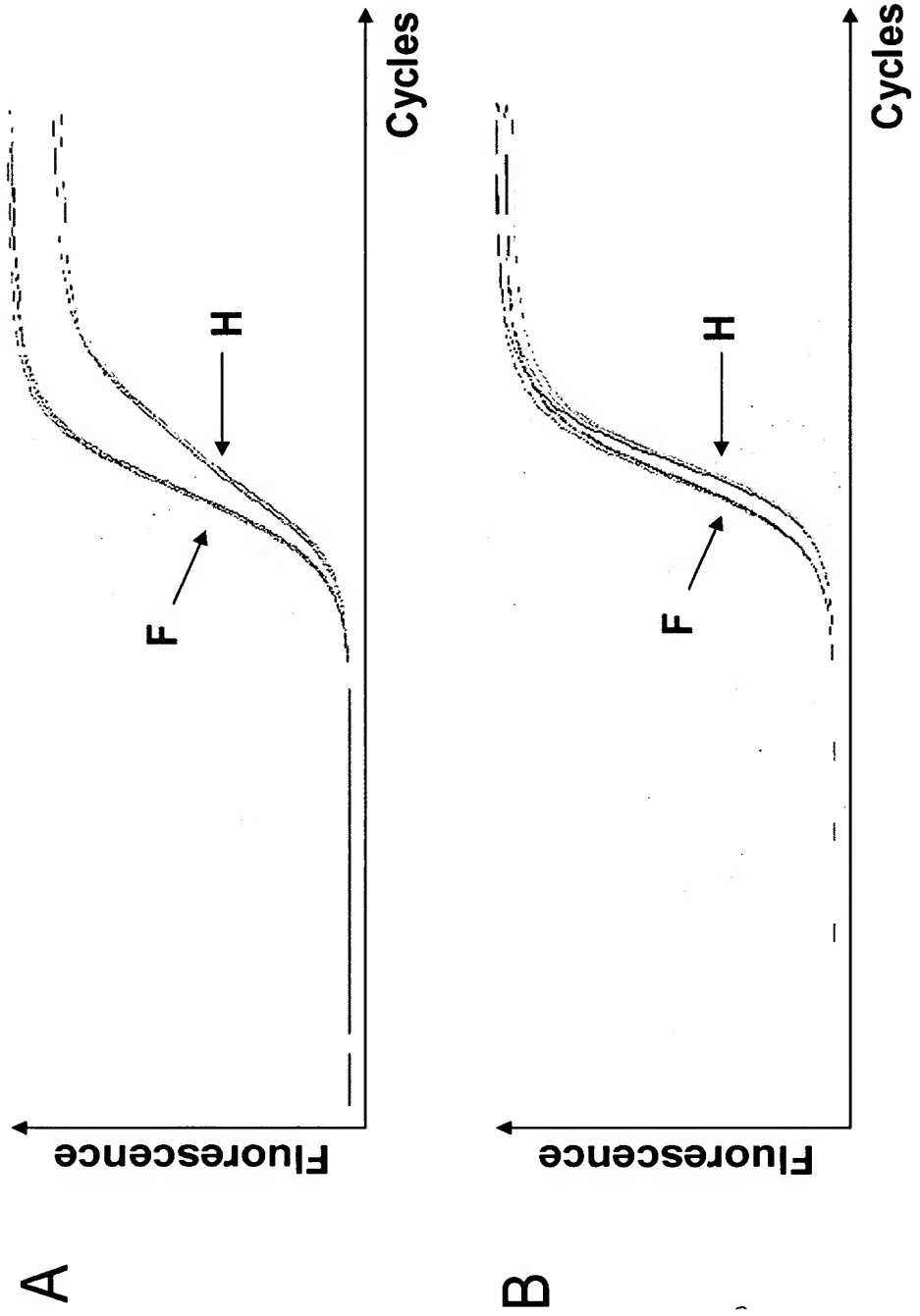
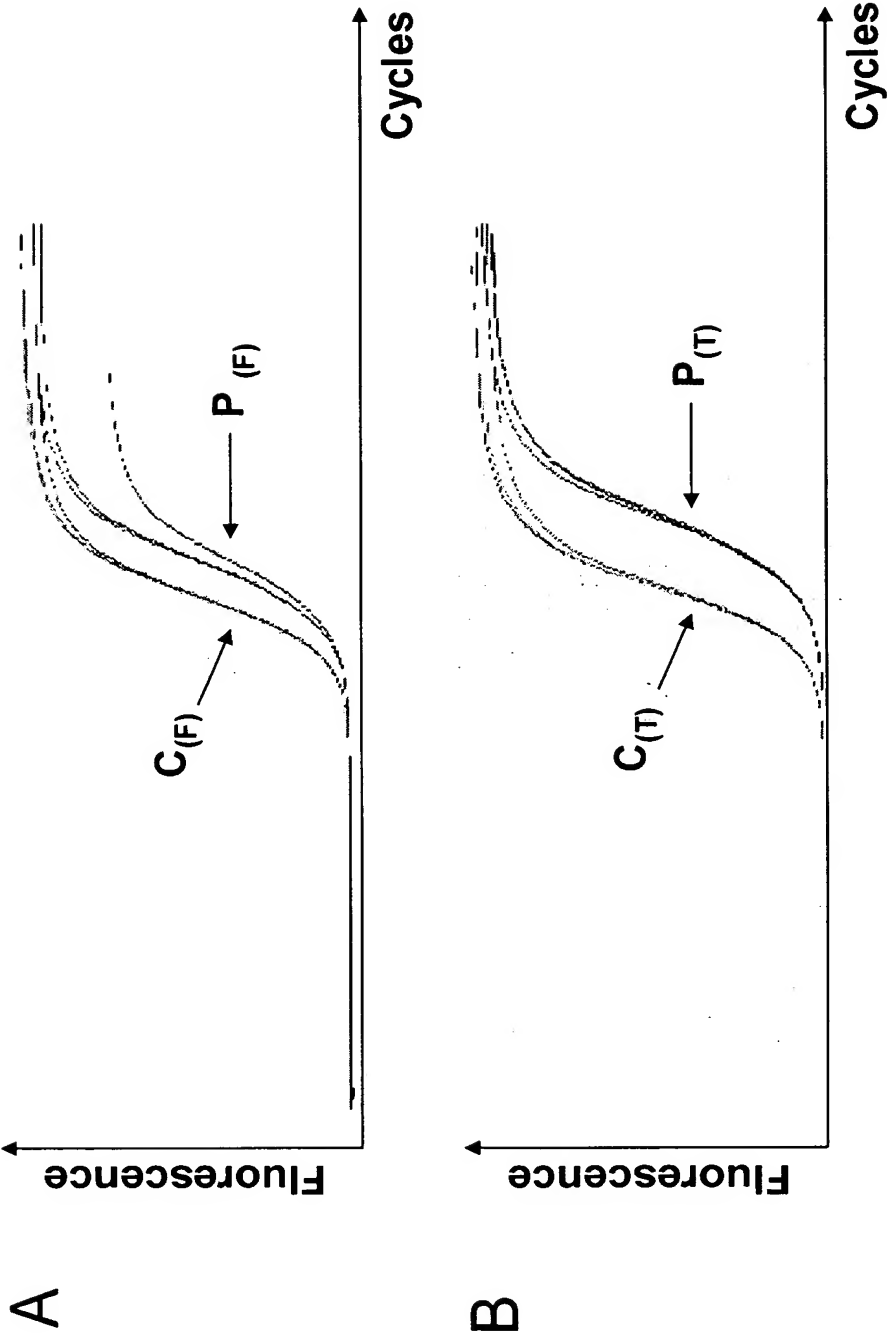


Fig. 4: Verification of differential expression of MAL2 by quantitative PCR



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**Fig. 5 : SEQ ID NO: 1,
amino acid sequence of
human MAL2 protein**

Length: 176 aa

```
1 MSAGGASVPP PNPVAVSFPP PRVTLFAGPD ILRTYSGAFV CLEILFGGLV
51 WILVASSNVP LPLLQGWVMF VSVTAFFFSF LFLGMFLSGM VAQIDANWNF
101 LDFAYHFTVF VFYFGAFLLE AAATSLHDLH CNTTITGQPL LSDNQYNINV
151 AASIFAFMTT ACYGCSLGLA LRRWRP
```

**Fig. 6: SEQ ID NO: 2,
nucleotide sequence of
human MAL2 cDNA**

Length: 2808 bp

```
1  GGCGGCGGGCG GCAGGAGCCC GGGAGGCGGA GGCGGGAGGC GGCGGCGGGCG
51  CGCGGAGACG CAGCAGCGGC AGCGGCAGCA TGTCGGCCCG CCGAGCGTCA
101 GTCCCGCCGC CCCCGAACCC CGCCGTGTCC TTCCCGCCGC CCCGGGTCAC
151 CCTGCCCGCC GGCCCCGACA TCCTGCGGAC CTACTCGGGC GCCTTCGTCT
201 GCCTGGAGAT TCTGTTCGGG GGTCTTGTCT GGATTTTGGT TGCCTCCTCC
251 AATGTTCCCTC TACCTCTACT ACAAGGATGG GTCATGTTTG TGTCCGTGAC
301 AGCGTTTTTC TTTTCGCTCC TCTTTCTGGG CATGTTCCCTC TCTGGCATGG
351 TGGCTCAAAT TGATGCTAAC TGGAACTTCC TGGATTTTGC CTACCATTTT
401 ACAGTATTTG TCTTCTATTT TGGAGCCTTT TTATTGGAAG CAGCAGCCAC
451 ATCCCTGCAT GATTTGCATT GCAATACAAC CATAACCGGG CAGCCACTCC
501 TGAGTGATAA CCAGTATAAC ATAAACGTAG CAGCCTCAAT TTTTGCCTTT
551 ATGACGACAG CTTGTTATGG TTGCAGTTTG GGTCTGGCTT TACGAAGATG
601 GCGACCGTAA CACTCCTTAG AAAGTGGCAG TCGTATGTTA GTTTCACCTG
651 TCTACTTTAT ATGTCTGATC AATTTGGATA CCATTTTGTC CAGATGCAAA
701 AACATTCCAA AAGTAATGTG TTTAGTAGAG AGAGACTCTA AGCTCAAGTT
751 CTGGTTTATT TCATGGATGG AATGTTAATT TTATTATGAT ATTAAAGAAA
801 TGGCCTTTTA TTTTACATCT CTCCCCTTTT TCCCTTTCCC CCTTTATTTT
851 CCTCCTTTTC TTTCTGAAAG TTTCTTTTTA TGTCCATAAA ATACAAATAT
901 ATTGTTTATA AAAAATTAGT ATCCCTTTTG TTTGGTTGCT GAGTCACCTG
951 AACCTTAATT TTAATTGGTA ATTACAGCCC CTAACAAAAA CACATTTCAA
1001 ATAGGCTTCC CACTAACTC TATATTTTAG TGTAACACAG GAATTGGCAC
1051 ACTTTTTTTA GAATGGGCCA GATGGTAAAT ATTTATGCTT CACGGTCCAT
1101 ACAGTCTCTG TCACAATAT TCAGTTCTGC TAGTATAGCG TAGAAACAGC
1151 TATACACAAT ACAGAAATGA ATGAGTGTGG TTATGTTCTA ATAAACCTTA
1201 TTTATAAAAA CAAGGGGAGG CTGGGTTTAG CCTGTGGGCC ATAGTTTGTC
1251 AACCCTGGT GTAAACCTT AGTTATATAT GATCTGCATT TTCTTGAAC
1301 GATCATTGAA AACTTATAAA CCTAACAGAA AAGCCACATA ATATTTAGTG
1351 TCATTATGCA ATAATCACAT TGCCTTTGTG TTAATAGTCA AATACTTACC
1401 TTTGGAGAAT ACTTACCTTT GGAGGAATGT ATAAAATTTT TCAGGCAGAG
1451 TCCTGGATAT AGGAAAAAGT AATTTATGAA GTAAACTTCA GTTGCTTAAT
1501 CAACTAATG ATAGTCTAAC AACTGAGCAA GATCCTCATC TGAGAGTGCT
1551 TAAAATGGGA TCCCCAGAGA CCATTAACCA ATACTGGAAC TGGTATCTAG
1601 CTAATGATGT CTTACTTTGA GTTTATTTAT GCTTCAGAA ACAGTTGTTT
1651 GCCCTGTGCA TGAATATACC CATATTTGTG TGTGGATATG TGAAGCTTTT
1701 CCAAATAGAG CTCTCAGAAG AATTAAGTTT TTACTTCTAA TTATTTTGCA
1751 TTACTTTGAG TTAAATTTGA ATAGAGTATT AAATATAAAG TTGTAGATT
1801 TTATGTGTTT TTGTATTAGC CCAGACATCT GTAATGTTTT TGCCTGGTG
1851 ACAGACAAAA TCTGTTTTAA AATCATATCC AGCACAAAAA CTATTTCTGG
1901 CTGAATAGCA CAGAAAAGTA TTTTAACCTA CCTGTAGAGA TCCTCGTCAT
1951 GGAAAGGTGC CAACTGTTT TGAATGGAAG GACAAGTAAG AGTGAGGCCA
2001 CAGTTCCAC CACACGAGG CTTTTGTATT GTTCTACTTT TTCAGCCCTT
2051 TACTTTCTGG CTGAAGCATC CCCTTGAGT GCCATGTATA AGTTGGGCTA
2101 TTAGAGTTCA TGGAACATAG AACCAACATG AATGAGTGGC ATGATCCGTG
2151 CTTAATGATC AAGTGTTACT TATCTAATAA TCCTCTAGAA AGAACCCTGT
2201 TAGATCTTGG TTTGTGATAA AAATATAAAG ACAGAAGACA TGAGGAAAAA
```

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2251 CAAAAGGTTT GAGGAAATCA GGCATATGAC TTTATACTTA ACATCAGATC
2301 TTTTCTATAA TATCCTACTA CTTTGGTTTT CCTAGCTCCA TACCACACAC
2351 CTAAACCTGT ATTATGAATT ACATATTACA AAGTCATAAA TGTGCCATAT
2401 GGATATACAG TACATTCTAG TTGGAATCGT TTA CTCTGCT AGAATTTAGG
2451 TGTGAGATTT TTTGTTTCCC AGGTATAGCA GGCTTATGTT TGGTGGCATT
2501 AAATTGGTTT CTTTAAAATG CTTTGGTGGC ACTTTTGTA ACAGATTGCT
2551 TCTAGATTGT TACAAACCAA GCCTAAGACA CATCTGTGAA TACTTAGATT
2601 TG TAGCTTAA TCACATTCTA GACTTGTGAG TTGAATGACA AAGCAGTTGA
2651 ACAAAAATTA TGGCATTTAA GAATTTAACA TGTCTTAGCT GTAAAAATGA
2701 GAAAGTGTTG GTTGGTTTTA AAATCTGGTA ACTCCATGAT GAAAAGAAAT
2751 TTATTTTATA CGTGTTATGT CTCTAATAAA GTATTCATTT GATAAAAAAA
2801 AAAAAAAA

Fig. 7: SEQ ID NO: 3

Length: 270 bp

```
1  TGGTGGCACT  TTTGTAAACA  GATTGCTTCT  AGATTGTTAC  AAACCAAGCC
51  TAAGACACAT  CTGTGAATAC  TTAGATTTGT  AGCTTAATCA  CATTCTAGAC
101 TTGTGAGTTG  AATGACAAAG  CAGTTGAACA  AAAATTATGG  CATTTAAGAA
151 TTTAACATGT  CTTAGCTGTA  AAAATGAGAA  AGTGTTGGTT  GGTTTTAAAA
201 TCTGGTAACT  CCATGATGGA  AAGAAATTTA  TTTTATACGT  GTTATGTCTC
251 TAATAAAGTA  TTCATTTGAT
```


**Fig. 8: SEQ ID NO: 4,
nucleotide sequence of
human MAL2 coding sequence**

Length: 531 bp

```
1  ATGTCGGCCG GCGGAGCGTC AGTCCCGCCG CCCCCGAACC CCGCCGTGTC
51  CTTCCCGCCG CCCCAGGTCA CCCTGCCCCG CGGCCCCGAC ATCCTGCGGA
101 CCTACTCGGG CGCCTTCGTC TGCCTGGAGA TTCTGTTCCG GGGTCTTGTC
151 TGGATTTTGG TTGCCTCCTC CAATGTTTCCT CTACCTCTAC TACAAGGATG
201 GGTCATGTTT GTGTCCGTGA CAGCGTTTTT CTTTTCGCTC CTCTTTCTGG
251 GCATGTTTCCT CTCTGGCATG GTGGCTCAAA TTGATGCTAA CTGGAAC TTC
301 CTGGATTTTG CCTACCATTT TACAGTATTT GTCTTCTATT TTGGAGCCTT
351 TTTATTGGAA GCAGCAGCCA CATCCCTGCA TGATTTGCAT TGCAATACAA
401 CCATAACCGG GCAGCCACTC CTGAGTGATA ACCAGTATAA CATAAACGTA
451 GCAGCCTCAA TTTTTCCTT TATGACGACA GCTTGTTATG GTTGCAGTTT
501 GGGTCTGGCT TTACGAAGAT GGCGACCGTA A
```

**Fig. 9: Alignment of SEQ ID NO: 2
with SEQ ID NO: 3**

Length: 270 bp

```

      1 TGGTGGCACTTTTGTAAACAGATTGCTTCTAGATTGTTACAAACCAAGCC 50
      |||||||||||||||||||||||||||||||||||||||||||||||||||
2524 TGGTGGCACTTTTGTAAACAGATTGCTTCTAGATTGTTACAAACCAAGCC 2573

      51 TAAGACACATCTGTGAATACTTAGATTTGTAGCTTAATCACATTCTAGAC 100
      |||||||||||||||||||||||||||||||||||||||||||||||||||
2574 TAAGACACATCTGTGAATACTTAGATTTGTAGCTTAATCACATTCTAGAC 2623

     101 TTGTGAGTTGAATGACAAAGCAGTTGAACAAAAATTATGGCATTTAAGAA 150
      |||||||||||||||||||||||||||||||||||||||||||||||||||
2624 TTGTGAGTTGAATGACAAAGCAGTTGAACAAAAATTATGGCATTTAAGAA 2673

     151 TTTAACATGTCTTAGCTGTAAAAATGAGAAAGTGTTGGTTGGTTTTAAAA 200
      |||||||||||||||||||||||||||||||||||||||||||||||||||
2674 TTTAACATGTCTTAGCTGTAAAAATGAGAAAGTGTTGGTTGGTTTTAAAA 2723

     201 TCTGGTAACTCCATGATGGAAGAAATTTATTTTATACGTGTTATGTCTC 250
      |||||||||||||||||| |||||||||||||||||||||||||||||||
2724 TCTGGTAACTCCATGATGGAAGAAATTTATTTTATACGTGTTATGTCTC 2773

     251 TAATAAAGTATTCATTTGAT 270
      |||||||||||||||
2774 TAATAAAGTATTCATTTGAT 2793
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Fig. 10:

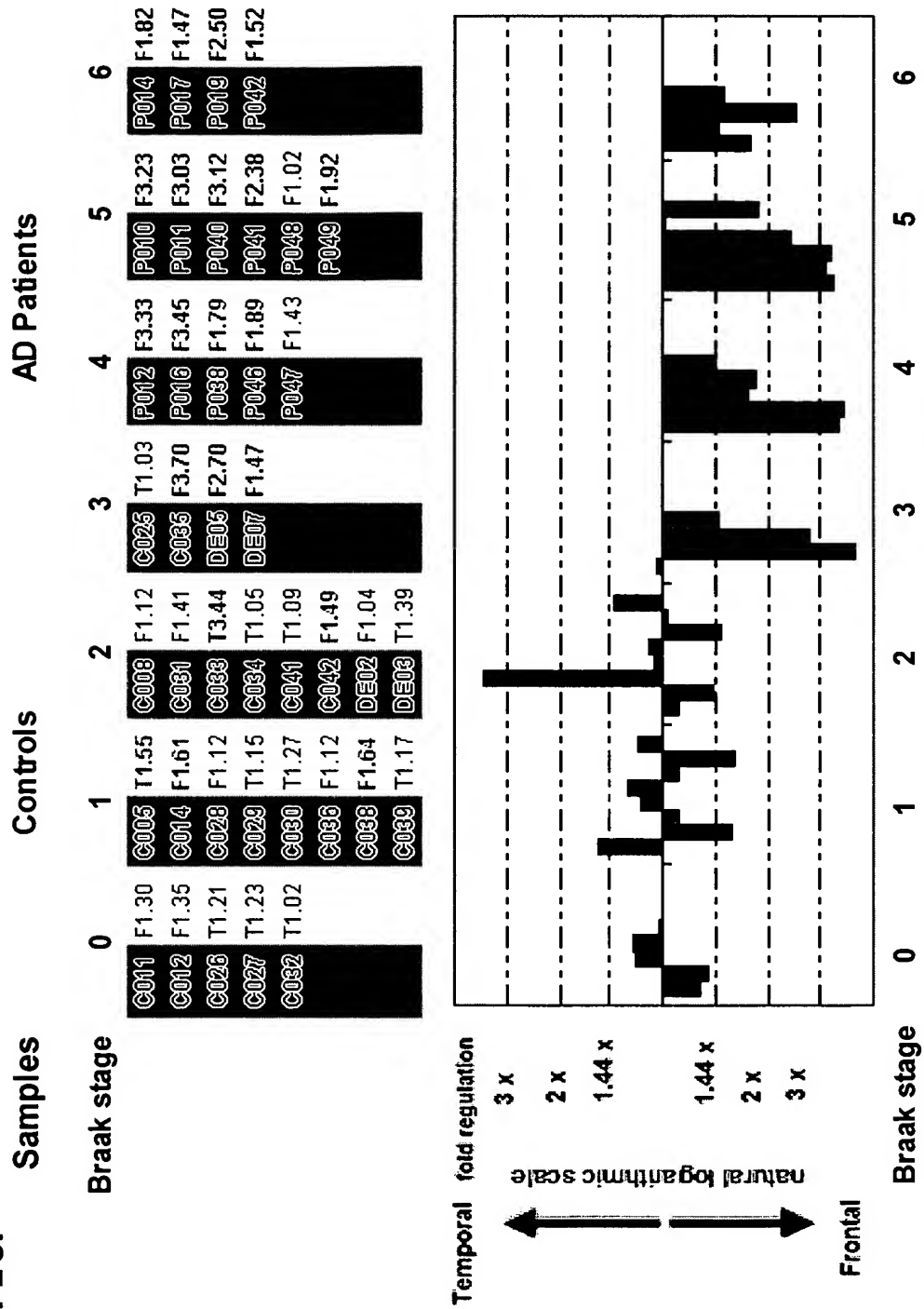
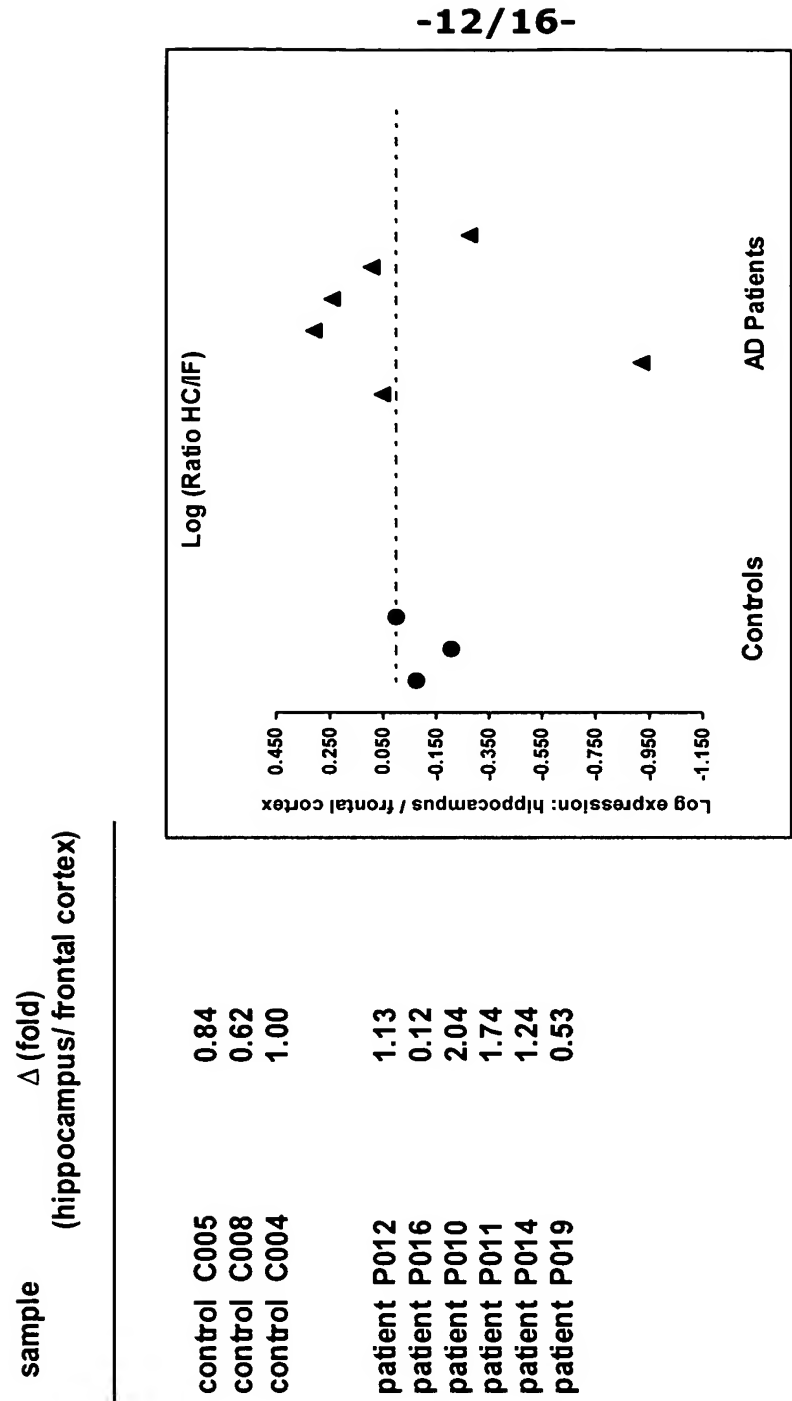
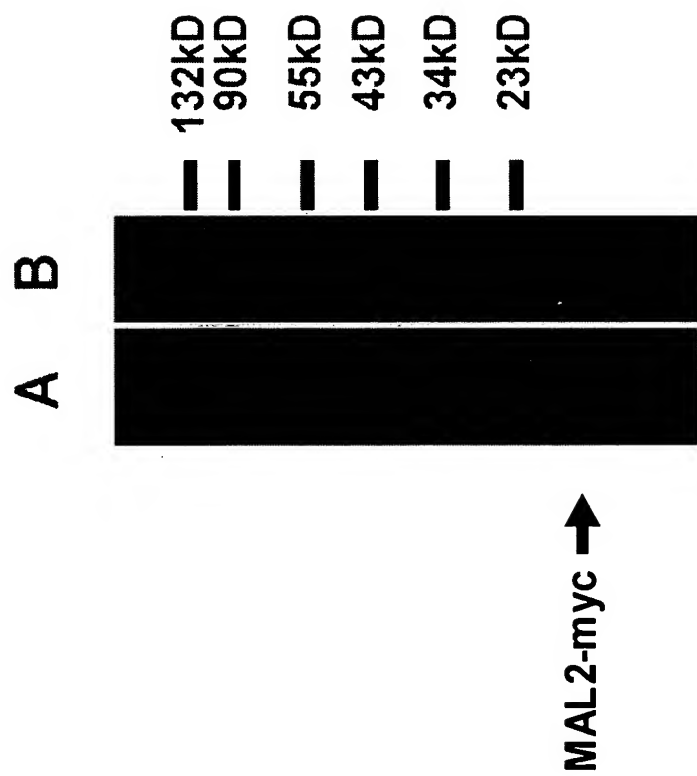


Fig. 11:



**Fig. 13: Western Blot of H4APSw cell protein extracts
labeled with anti-MAL2-myc antibodies**



**Fig. 14: Immunofluorescence analysis of
MAL2 protein in neuroglioma cells**

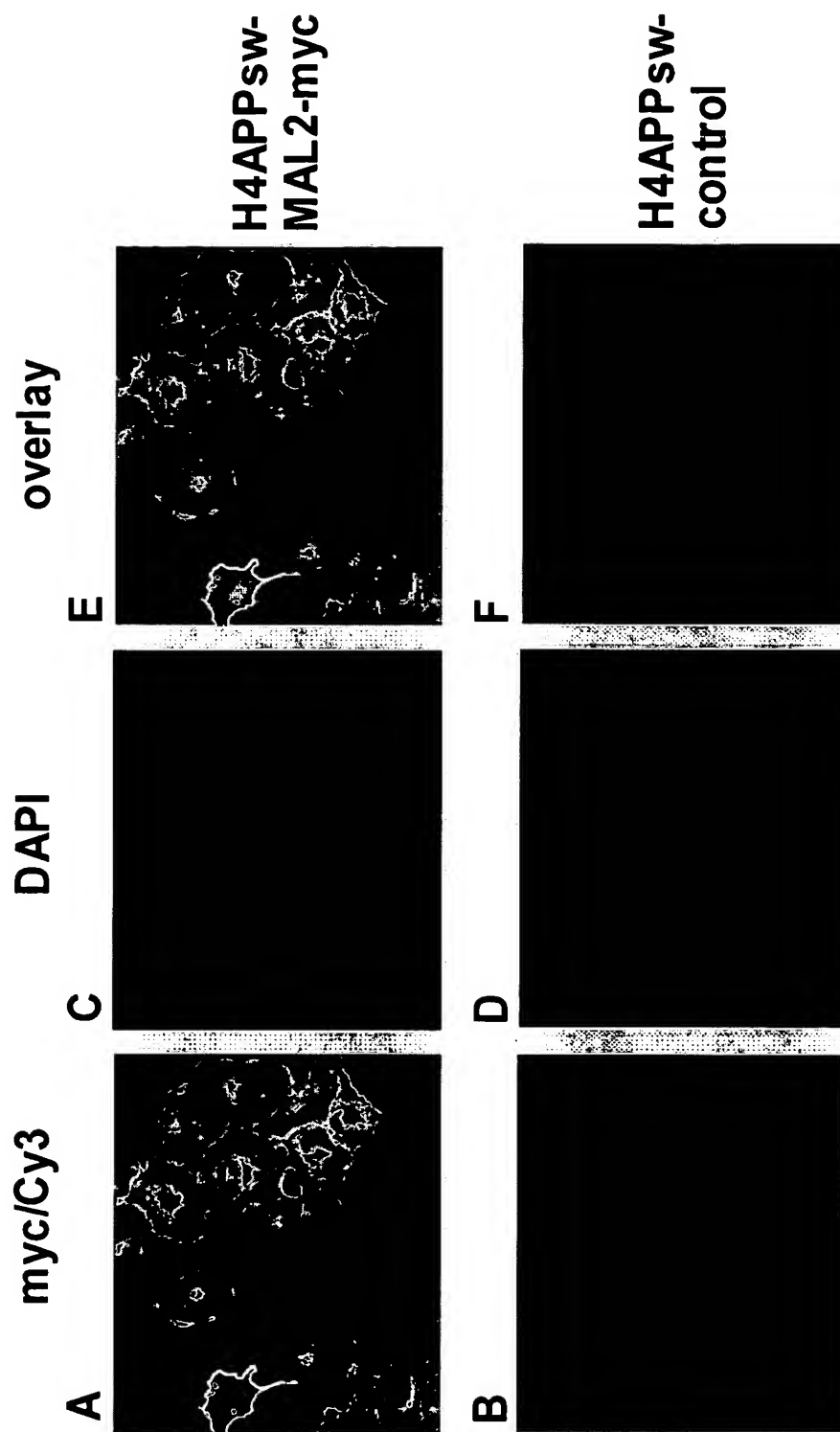


Fig. 15: Images of human pre-central brain sections labeled with anti-MAL2 antibodies and with DAPI

